

SEQUENCE LISTING

<110> Wittamer, Valerie

Communi, David

Vandenbogaerde, Ann

Detheux, Michel

Parmentier, Marc

<120> Compositions and Methods Comprising a Ligand of ChemerinR

<130> 9409/2212

<150> US 60/303,858

<151> 2001-07-09

<150> US 09/905,253

<151> 2001-07-13

<150> US 10/201,187

<151> 2001-07-23

<160> 91

<170> PatentIn version 3.2

<210> 1

<211> 1112

<212> DNA

gtgaccatca tcattacctt cttcctctgc tggtgccctt accacacact caaccccta	840
gagctccacc acactgccat gcctggctct gtcttcagcc tgggttgcc cctggccact	900
gcccttgcca ttgccaacag ctgcataaac cccattctgt atgtttcat ggtaggact	960
tcaagaagtt caagggtggcc ctcttccttc gcctggtaaa tgctctaagt gaagatacag	1020
gccactcttc ctaccccagc catagaagct ttaccaagat gtcaatgaat gagaggactt	1080
ctatgaatga gagggagacc ggcatacgaaa ga	1112

<210> 2
<211> 371
<212> PRT
<213> Homo sapiens

<400> 2

Met Glu Asp Glu Asp Tyr Asn Thr Ser Ile Ser Tyr Gly Asp Glu Tyr			
1	5	10	15

Pro Asp Tyr Leu Asp Ser Ile Val Val Leu Glu Asp Leu Ser Pro Leu		
20	25	30

Glu Ala Arg Val Thr Arg Ile Phe Leu Val Val Val Tyr Ser Ile Val		
35	40	45

Cys Phe Leu Gly Ile Leu Gly Asn Gly Leu Val Ile Ile Ile Ala Thr		
50	55	60

Phe Lys Met Lys Lys Thr Val Asn Met Val Trp Phe Leu Asn Leu Ala			
65	70	75	80

Val Ala Asp Phe Leu Phe Asn Val Phe Leu Pro Ile His Ile Thr Tyr		
85	90	95

Ala Ala Met Asp Tyr His Trp Val Phe Gly Thr Ala Met Cys Lys Ile		
100	105	110

Ser Asn Phe Leu Leu Ile His Asn Met Phe Thr Ser Val Phe Leu Leu		
115	120	125

Thr Ile Ile Ser Ser Asp Arg Cys Ile Ser Val Leu Leu Pro Val Trp		
130	135	140

Ser Gln Asn His Arg Ser Val Arg Leu Ala Tyr Met Ala Cys Met Val

145	150	155	160
Ile Trp Val Leu Ala Phe Phe Leu Ser Ser Pro Ser Leu Val Phe Arg			
165	170	175	
Asp Thr Ala Asn Leu His Gly Lys Ile Ser Cys Phe Asn Asn Phe Ser			
180	185	190	
Leu Ser Thr Pro Gly Ser Ser Trp Pro Thr His Ser Gln Met Asp			
195	200	205	
Pro Val Gly Tyr Ser Arg His Met Val Val Thr Val Thr Arg Phe Leu			
210	215	220	
Cys Gly Phe Leu Val Pro Val Leu Ile Ile Thr Ala Cys Tyr Leu Thr			
225	230	235	240
Ile Val Cys Lys Leu Gln Arg Asn Arg Leu Ala Lys Thr Lys Lys Pro			
245	250	255	
Phe Lys Ile Ile Val Thr Ile Ile Thr Phe Phe Leu Cys Trp Cys			
260	265	270	
Pro Tyr His Thr Leu Asn Leu Leu Glu Leu His His Thr Ala Met Pro			
275	280	285	
Gly Ser Val Phe Ser Leu Gly Leu Pro Leu Ala Thr Ala Leu Ala Ile			
290	295	300	
Ala Asn Ser Cys Met Asn Pro Ile Leu Tyr Val Phe Met Gly Gln Asp			
305	310	315	320
Phe Lys Lys Phe Lys Val Ala Leu Phe Ser Arg Leu Val Asn Ala Leu			
325	330	335	
Ser Glu Asp Thr Gly His Ser Ser Tyr Pro Ser His Arg Ser Phe Thr			
340	345	350	
Lys Met Ser Ser Met Asn Glu Arg Thr Ser Met Asn Glu Arg Glu Thr			
355	360	365	
Gly Met Leu			
370			

<210> 3
<211> 1116
<212> DNA
<213> Mus musculus

<400> 3
atggagtacg acgcttacaa cgactccggc atctatgatg atgagtaactc tgatggcttt 60
ggctactttg tggacttgga ggaggcgagt ccgtgggagg ccaaggtggc cccggtcttc 120
ctggtgtga tctacagctt ggtgtgcttc ctgcgtctcc taggcaacgg cctggtgatt 180
gtcatcgcca cttcaagat gaagaagacc gtgaacactg tgtggttgt caacctggct 240
gtggccgact tcctgttcaa catcttttg ccgatgcaca tcacctacgc ggccatggac 300
taccactggg tgttcgggaa ggccatgtgc aagatcagca acttcttgct cagccacaac 360
atgtacacca gcgtcttcct gctgactgtc atcagcttg accgctgcat ctccgtgctg 420
ctccccgtct ggtcccagaa ccaccgcagc atcgcgctgg cctacatgac ctgctcggcc 480
gtctgggtcc tggcttcctt cttgagctcc ccgtcccttg tcttccggaa caccgccaac 540
attcatggga agataacctg cttcaacaac ttcaagcttg ccgcgcctga gtcctccca 600
catcccgccc actcgcaagt agttccaca gggtacagca gacacgtggc ggtcaactgtc 660
acccgcttcc tttgcggctt cctgatcccc gtcttcatca tcacggcctg ctaccttacc 720
atcgtcttca agctgcagcg caaccgcctg gccaaagaaca agaagccctt caagatcatc 780
atcaccatca tcatcacctt cttcctctgc tggtgccctt accacaccctt ctacctgctg 840
gagctccacc acacagctgt gccaagctct gtcttcagcc tggggctacc cctggccacg 900
gccgtcgcca tcgccaacag ctgcatgaac cccattctgt acgtcttcat gggccacgac 960
ttcagaaaat tcaaggtggc cctcttcctt cgcctggcca acgcccctgag tgaggacaca 1020
ggcccttcctt cctacccag tcacaggagc ttccaccaaga tgtcgtcttt gaatgagaag 1080
gcttcggtga atgagaagga gaccagtacc ctctga 1116

<210> 4
<211> 371
<212> PRT
<213> Mus musculus

<400> 4

Met Glu Tyr Asp Ala Tyr Asn Asp Ser Gly Ile Tyr Asp Asp Glu Tyr
1 5 10 15

Ser Asp Gly Phe Gly Tyr Phe Val Asp Leu Glu Glu Ala Ser Pro Trp
20 25 30

Glu Ala Lys Val Ala Pro Val Phe Leu Val Val Ile Tyr Ser Leu Val
35 40 45

Cys Phe Leu Gly Leu Leu Gly Asn Gly Leu Val Ile Val Ile Ala Thr
50 55 60

Phe Lys Met Lys Lys Thr Val Asn Thr Val Trp Phe Val Asn Leu Ala
65 70 75 80

Val Ala Asp Phe Leu Phe Asn Ile Phe Leu Pro Met His Ile Thr Tyr
85 90 95

Ala Ala Met Asp Tyr His Trp Val Phe Gly Lys Ala Met Cys Lys Ile
100 105 110

Ser Asn Phe Leu Leu Ser His Asn Met Tyr Thr Ser Val Phe Leu Leu
115 120 125

Thr Val Ile Ser Phe Asp Arg Cys Ile Ser Val Leu Leu Pro Val Trp
130 135 140

Ser Gln Asn His Arg Ser Ile Arg Leu Ala Tyr Met Thr Cys Ser Ala
145 150 155 160

Val Trp Val Leu Ala Phe Phe Leu Ser Ser Pro Ser Leu Val Phe Arg
165 170 175

Asp Thr Ala Asn Ile His Gly Lys Ile Thr Cys Phe Asn Asn Phe Ser
180 185 190

Leu Ala Ala Pro Glu Ser Ser Pro His Pro Ala His Ser Gln Val Val
195 200 205

Ser Thr Gly Tyr Ser Arg His Val Ala Val Thr Val Thr Arg Phe Leu
210 215 220

Cys Gly Phe Leu Ile Pro Val Phe Ile Ile Thr Ala Cys Tyr Leu Thr
225 230 235 240

Ile Val Phe Lys Leu Gln Arg Asn Arg Leu Ala Lys Asn Lys Lys Pro
245 250 255

Phe Lys Ile Ile Ile Thr Ile Ile Thr Phe Phe Leu Cys Trp Cys
260 265 270

Pro Tyr His Thr Leu Tyr Leu Leu Glu Leu His His Thr Ala Val Pro
275 280 285

Ser Ser Val Phe Ser Leu Gly Leu Pro Leu Ala Thr Ala Val Ala Ile
290 295 300

Ala Asn Ser Cys Met Asn Pro Ile Leu Tyr Val Phe Met Gly His Asp
305 310 315 320

Phe Arg Lys Phe Lys Val Ala Leu Phe Ser Arg Leu Ala Asn Ala Leu
325 330 335

Ser Glu Asp Thr Gly Pro Ser Ser Tyr Pro Ser His Arg Ser Phe Thr
340 345 350

Lys Met Ser Ser Leu Asn Glu Lys Ala Ser Val Asn Glu Lys Glu Thr
355 360 365

Ser Thr Leu
370

<210> 5
<211> 1116
<212> DNA
<213> Rattus norvegicus

<400> 5
atggagtacg agggttacaa cgactccagc atctacggtg aggagtattc tgacggctcg 60
gactacatcg tggacttggaa ggaggcgggt ccactggagg ccaaggtggc cgaggtcttc 120
ctggtgtaa tctacagctt ggtgtgcttc ctcggatcc taggcaatgg cctgggtatt 180
gtcatcgcca cttcaagat gaagaagacg gtgaacaccg tgtggtttgt caacctggcc 240
gtggctgact tcctgttcaa catttcttg cccatccaca tcacctatgc cgctatggac 300
taccactggg tgttcggaa agccatgtgc aagatttagta gcttctgct aagccacaac 360
atgtacacca gcgttccct gctcactgtc atcagcttc accgctgcat ctccgtgctc 420
ctccccgtct ggtcccagaa ccaccgcagc gtgcgtctgg cctacatgac ctgcgtggtt 480

gtctgggtct ggctttcttc tgagtctccc ccgtccctcg tcttcggaca cgtcagcacc	540
agccacggga agataaacctg cttcaacaac ttcaagcctgg cggcgccccga gcctttctct	600
cattccaccc acccgcgaaac agaccggta gggtacagca gacatgtggc ggtcaccgtc	660
acccgcttcc tctgtggctt cctgatcccc gtcttcatca tcacggcctg ttacctcacc	720
atcgcttca agttgcagcg caaccgccag gccaaagacca agaagccctt caagatcatc	780
atcaccatca tcatcacctt cttccctctgc tggtgccctt accacacact ctacctgctg	840
gagctccacc acacggctgt gccagcctct gtcttcagcc tggactgcc cctggccaca	900
gccgtcgcca tcgccaacag ctgtatgaac cccatcctgt acgtcttcat gggccacgac	960
ttcaaaaaat tcaagggtggc cctttctcc cgcctggta atgccctgag cgaggacaca	1020
ggaccctccct cctaccccaag tcacaggagc ttcacaccaaga tgtcctcatt gattgagaag	1080
gcttcagtga atgagaaaaga gaccagcacc ctctga	1116

<210> 6
 <211> 371
 <212> PRT
 <213> Rattus norvegicus

 <400> 6

Met Glu Tyr Glu Gly Tyr Asn Asp Ser Ser Ile Tyr Gly Glu Glu Tyr
 1 5 10 15

Ser Asp Gly Ser Asp Tyr Ile Val Asp Leu Glu Glu Ala Gly Pro Leu
 20 25 30

Glu Ala Lys Val Ala Glu Val Phe Leu Val Val Ile Tyr Ser Leu Val
 35 40 45

Cys Phe Leu Gly Ile Leu Gly Asn Gly Leu Val Ile Val Ile Ala Thr
 50 55 60

Phe Lys Met Lys Lys Thr Val Asn Thr Val Trp Phe Val Asn Leu Ala
 65 70 75 80

Val Ala Asp Phe Leu Phe Asn Ile Phe Leu Pro Ile His Ile Thr Tyr
 85 90 95

Ala Ala Met Asp Tyr His Trp Val Phe Gly Lys Ala Met Cys Lys Ile
 100 105 110

Ser Ser Phe Leu Leu Ser His Asn Met Tyr Thr Ser Val Phe Leu Leu
115 120 125

Thr Val Ile Ser Phe Asp Arg Cys Ile Ser Val Leu Leu Pro Val Trp
130 135 140

Ser Gln Asn His Arg Ser Val Arg Leu Ala Tyr Met Thr Cys Val Val
145 150 155 160

Val Trp Val Trp Leu Ser Ser Glu Ser Pro Pro Ser Leu Val Phe Gly
165 170 175

His Val Ser Thr Ser His Gly Lys Ile Thr Cys Phe Asn Asn Phe Ser
180 185 190

Leu Ala Ala Pro Glu Pro Phe Ser His Ser Thr His Pro Arg Thr Asp
195 200 205

Pro Val Gly Tyr Ser Arg His Val Ala Val Thr Val Thr Arg Phe Leu
210 215 220

Cys Gly Phe Leu Ile Pro Val Phe Ile Ile Thr Ala Cys Tyr Leu Thr
225 230 235 240

Ile Val Phe Lys Leu Gln Arg Asn Arg Gln Ala Lys Thr Lys Lys Pro
245 250 255

Phe Lys Ile Ile Ile Thr Ile Ile Thr Phe Phe Leu Cys Trp Cys
260 265 270

Pro Tyr His Thr Leu Tyr Leu Leu Glu Leu His His Thr Ala Val Pro
275 280 285

Ala Ser Val Phe Ser Leu Gly Leu Pro Leu Ala Thr Ala Val Ala Ile
290 295 300

Ala Asn Ser Cys Met Asn Pro Ile Leu Tyr Val Phe Met Gly His Asp
305 310 315 320

Phe Lys Lys Phe Lys Val Ala Leu Phe Ser Arg Leu Val Asn Ala Leu
325 330 335

Ser Glu Asp Thr Gly Pro Ser Ser Tyr Pro Ser His Arg Ser Phe Thr
340 345 350

Lys Met Ser Ser Leu Ile Glu Lys Ala Ser Val Asn Glu Lys Glu Thr
355 360 365

Ser Thr Leu
370

<210> 7
<211> 492
<212> DNA
<213> *Homo sapiens*

<400> 7
atgcgacggc tgctgatccc tctggccctg tggctgggtg cggtggcggt gggcgtcgcc 60
gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaaggcac 120
ccgccccgtgc agtgggcctt ccaggagacc agtgtggaga gcgcgcgtgga cacgccttc 180
ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 240
gactggaaga aacccgagtg caaagtcaagg cccaatggaa ggaaacggaa atgcctggcc 300
tgcatcaaac tgggctctga ggacaaagtt ctgggcccgt tggtccactg ccccatagag 360
acccaagttc tgccggagggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 420
gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc caaggccctg 480
ccccgcagct aa 492

<210> 8
<211> 163
<212> PRT
<213> *Homo sapiens*

<400> 8

Val Gly Val Ala Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val
20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln
35 40 45

Glu Thr Ser Val Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile
50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg
65 70 75 80

Asp Trp Lys Lys Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg
85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly
100 105 110

Arg Leu Val His Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu
115 120 125

Glu His Gln Glu Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp
 130 135 140

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser Lys Ala Leu
145 150 155 160

Pro Arg Ser

<210> 9
<211> 489
<212> DNA
<213> *Mus musculus*

<400> 9
atgaagtgct tgctgatctc cctagcccta tggctggca cagtgccac acgtggaca 60
gagccccaaac tcagcgagac ccagcgagg agcctacagg tggctctgga ggagttcac 120
aaacacccac ctgtgcagtt ggccttccaa gagatcggtg tggacagagc tgaagaagtg 180
ctcttcctag ctggcacctt tgtgaggttg gaatttaagc tccagcagac caactgcccc 240
aagaaggact ggaaaaagcc ggagtgcaca atcaaacc aa acgggagaag gcggaaatgc 300
ctggcctgca taaaaatgga ccccaagggt aaaattctag gccggatagt ccactgccc 360
attctgaagc aagggcctca ggatcctcag gagttgcaat gcattaagat agcacaggct 420
ggcgaagacc cccacggcta cttccctacct ggacagtttg ccttctccag ggccctgaga 480
accaaataa 489

<210> 10
<211> 162
<212> PRT
<213> Mus musculus

<400> 10

Met Lys Cys Leu Leu Ile Ser Leu Ala Leu Trp Leu Gly Thr Val Gly
1 5 10 15

Thr Arg Gly Thr Glu Pro Glu Leu Ser Glu Thr Gln Arg Arg Ser Leu
20 25 30

Gln Val Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Leu Ala
35 40 45

Phe Gln Glu Ile Gly Val Asp Arg Ala Glu Glu Val Leu Phe Ser Ala
50 55 60

Gly Thr Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Asn Cys Pro
65 70 75 80

Lys Lys Asp Trp Lys Lys Pro Glu Cys Thr Ile Lys Pro Asn Gly Arg
85 90 95

Arg Arg Lys Cys Leu Ala Cys Ile Lys Met Asp Pro Lys Gly Lys Ile
100 105 110

Leu Gly Arg Ile Val His Cys Pro Ile Leu Lys Gln Gly Pro Gln Asp
115 120 125

Pro Gln Glu Leu Gln Cys Ile Lys Ile Ala Gln Ala Gly Glu Asp Pro
130 135 140

His Gly Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser Arg Ala Leu Arg
145 150 155 160

Thr Lys

<210> 11
<211> 429
<212> DNA
<213> Homo sapiens

<400> 11

gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaagcac	60
ccgccccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga cacgcccctc	120
ccagctggaa tatttgttag gctggaattt aagctgcagc agacaagctg ccggaagagg	180
gactggaaga aacccgagtg caaagtcaagg cccaatggga ggaaacggaa atgcctggcc	240
tgcataaacc tgggctctga ggacaaagtt ctggggccgt tggtccactg ccccatagag	300
acccaagttc tgccggaggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg	360
gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc caaggccctg	420
ccccgcagc	429

<210> 12
 <211> 143
 <212> PRT
 <213> Homo sapiens

 <400> 12

Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val Ala Leu Glu Glu			
1	5	10	15

Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val			
20	25	30	

Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile Phe Val Arg Leu			
35	40	45	

Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg Asp Trp Lys Lys			
50	55	60	

Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg Lys Cys Leu Ala			
65	70	75	80

Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly Arg Leu Val His			
85	90	95	

Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu Glu His Gln Glu			
100	105	110	

Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp Pro His Ser Phe			
115	120	125	

Tyr Phe Pro Gly Gln Phe Ala Phe Ser Lys Ala Leu Pro Arg Ser.

130

135

140

<210> 13
<211> 411
<212> DNA
<213> Homo sapiens

<400> 13
gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaagcac 60
ccgccccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga cacgcccttc 120
ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 180
gactggaaga aacccgagtg caaagtcaagg cccaatggaa ggaaacggaa atgcctggcc 240
tgcataaac tgggctctga ggacaaagtt ctgggcccgt tggtccactg ccccatagag 300
acccaagttc tgccggaggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 360
gctggtgagg accccccacag cttctacttc cctggacagt tcgccttctc c 411

<210> 14
<211> 137
<212> PRT
<213> Homo sapiens

<400> 14

Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val Ala Leu Glu Glu
1 5 10 15

Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln Glu Thr Ser Val
20 25 30

Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile Phe Val Arg Leu
35 40 45

Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg Asp Trp Lys Lys
50 55 60

Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg Lys Cys Leu Ala
65 70 75 80

Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly Arg Leu Val His
85 90 95

Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu Glu His Gln Glu
100 105 110

Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp Pro His Ser Phe
115 120 125

Tyr Phe Pro Gly Gln Phe Ala Phe Ser
130 135

<210> 15
<211> 9
<212> PRT
<213> Homo sapiens

<400> 15

Lys Leu Gln Gln Thr Ser Cys Arg Lys
1 5

<210> 16
<211> 10
<212> PRT
<213> Homo sapiens

<400> 16

Arg Asp Trp Lys Lys Pro Glu Cys Lys Val
1 5 10

<210> 17
<211> 13
<212> PRT
<213> Homo sapiens

<400> 17

Arg Gly Leu Gln Val Ala Leu Glu Glu Phe His Lys His
1 5 10

<210> 18
<211> 14
<212> PRT
<213> Homo sapiens

<400> 18

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val
1 5 10

<210> 19
<211> 14
<212> PRT

<213> Homo sapiens

<400> 19

Arg Leu Val His Cys Pro Ile Glu Thr Gln Leu Val Arg Glu
1 5 10

<210> 20

<211> 14

<212> PRT

<213> Homo sapiens

<400> 20

Arg Arg Gly Leu Gln Val Ala Leu Glu Glu Phe His Lys His
1 5 10

<210> 21

<211> 14

<212> PRT

<213> Homo sapiens

<400> 21

Arg Glu Ala Glu Glu His Gln Glu Thr Gln Cys Leu Arg Val
1 5 10

<210> 22

<211> 19

<212> PRT

<213> Homo sapiens

<400> 22

Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala
1 5 10 15

Phe Ser Lys

<210> 23

<211> 28

<212> DNA

<213> Homo sapiens

<400> 23

caggaattca gcatgcgacg gctgctga

28

<210> 24

<211> 29

<212> DNA

<213> Homo sapiens

<400> 24

gctctagatt agctgcgggg cagggcctt

29

<210> 25

<211> 48

<212> DNA

<213> Mus musculus

<400> 25

tctctcgaga aaagagaggc tgaagctaca cgtgggacag agcccgaa

48

<210> 26

<211> 48

<212> DNA

<213> Homo sapiens

<400> 26

tctctcgaga aaagagaggc tgaagctggc gtcgcccggc tcacggaa

48

<210> 27

<211> 48

<212> DNA

<213> Homo sapiens

<400> 27

tctctcgaga aaagagaggc tgaagctgtg ggccgtcgcccg agctcacg

48

<210> 28

<211> 30

<212> DNA

<213> Mus musculus

<400> 28

agggaattct tatttgttcc tcagggccct

30

<210> 29

<211> 30

<212> DNA

<213> Homo sapiens

<400> 29

agggaattct tagctgcggg gcagggcctt

30

<210> 30

<211> 28

<212> DNA

<213> Mus musculus

<400> 30

caggaattcg ccatgaagtg cttgctga

28

<210> 31
<211> 28
<212> DNA
<213> Homo sapiens

<400> 31
caggaattca gcatgcgacg gctgctga

28

<210> 32
<211> 29
<212> DNA
<213> Mus musculus

<400> 32
gctctagatt tggttctcag ggccctgga

29

<210> 33
<211> 29
<212> DNA
<213> Homo sapiens

<400> 33
gctctagagc tgccccccag ggccttggaa

29

<210> 34
<211> 17
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<220>
<221> misc_feature
<222> (1)..(17)
<223> Synthetic primer

<400> 34
gcagacaaggc tgccggaa

17

<210> 35
<211> 19
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

```
<220>
<221> misc_feature
<222> (1)..(19)
<223> Synthetic primer

<400> 35
agtttcatgc aggccaggc 19

<210> 36
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe

<220>
<221> misc_feature
<222> (1)..(23)
<223> Synthetic probe

<400> 36
aacccgagtg caaaatcgagg ccc 23

<210> 37
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<220>
<221> misc_feature
<222> (1)..(18)
<223> Synthetic primer

<400> 37
gtccccagaac caccgcag 18

<210> 38
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<220>
<221> misc_feature
<222> (1)..(21)
```

<223> Synthetic primer

<400> 38

aagaaagcca ggacccagat g

21

<210> 39

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic probe

<220>

<221> misc_feature

<222> (1)..(23)

<223> Synthetic probe

<400> 39

ttcgctggc ttacatggcc tgc

23

<210> 40

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<220>

<221> misc_feature

<222> (1)..(19)

<223> Synthetic primer

<400> 40

gaaggtaag gtcggagtc

19

<210> 41

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic primer

<220>

<221> misc_feature

<222> (1)..(20)

<223> Synthetic primer

<400> 41

gaagatggtg atgggatttc

20

<210> 42
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic primer

<220>
<221> misc_feature
<222> (1)..(20)
<223> Synthetic primer

<400> 42
agctctcccg ccggcctctg

20

<210> 43
<211> 19
<212> PRT
<213> Mus musculus

<400> 43

Ala Gln Ala Gly Glu Asp Pro His Gly Tyr Phe Leu Pro Gly Gln Phe
1 5 10 15

Ala Phe Ser

<210> 44
<211> 12
<212> PRT
<213> Mus musculus

<400> 44

His Gly Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 45
<211> 11
<212> PRT
<213> Mus musculus

<400> 45

Gly Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 46
<211> 10
<212> PRT
<213> Mus musculus

<400> 46

Tyr Phe Leu Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 47
<211> 9
<212> PRT
<213> Mus musculus

<400> 47

Phe Leu Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 48
<211> 8
<212> PRT
<213> Mus musculus

<400> 48

Leu Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 49
<211> 26
<212> PRT
<213> Mus musculus

<400> 49

Ile Ala Gln Ala Gly Glu Asp Pro His Gly Tyr Phe Leu Pro Gly Gln
1 5 10 15

Phe Ala Phe Ser Arg Ala Leu Arg Thr Lys
20 25

<210> 50
<211> 21
<212> PRT
<213> Mus musculus

<400> 50

Ile Ala Gln Ala Gly Glu Asp Pro His Gly Tyr Phe Leu Pro Gly Gln

1

5

10

15

Phe Ala Phe Ser Arg
20

<210> 51
<211> 170
<212> PRT
<213> Homo sapiens

<400> 51

Met Lys Thr Gln Arg Asp Gly His Ser Leu Gly Arg Trp Ser Leu Val
1 5 10 15

Leu Leu Leu Leu Gly Leu Val Met Pro Leu Ala Ile Ile Ala Gln Val
20 25 30

Leu Ser Tyr Lys Glu Ala Val Leu Arg Ala Ile Asp Gly Ile Asn Gln
35 40 45

Arg Ser Ser Asp Ala Asn Leu Tyr Arg Leu Leu Asp Leu Asp Pro Arg
50 55 60

Pro Thr Met Asp Gly Asp Pro Asp Thr Pro Lys Pro Val Ser Phe Thr
65 70 75 80

Val Lys Glu Thr Val Cys Pro Arg Thr Thr Gln Gln Ser Pro Glu Asp
85 90 95

Cys Asp Phe Lys Lys Asp Gly Leu Val Lys Arg Cys Met Gly Thr Val
100 105 110

Thr Leu Asn Gln Ala Arg Gly Ser Phe Asp Ile Ser Cys Asp Lys Asp
115 120 125

Asn Lys Arg Phe Ala Leu Leu Gly Asp Phe Phe Arg Lys Ser Lys Glu
130 135 140

Lys Ile Gly Lys Glu Phe Lys Arg Ile Val Gln Arg Ile Lys Asp Phe
145 150 155 160

Leu Arg Asn Leu Val Pro Arg Thr Glu Ser
165 170

<210> 52
<211> 25
<212> PRT
<213> Homo sapiens

<400> 52

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe
1 5 10 15

Ala Phe Ser Lys Ala Leu Pro Arg Ser
20 25

<210> 53
<211> 19
<212> PRT
<213> Homo sapiens

<400> 53

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe
1 5 10 15

Ala Phe Ser

<210> 54
<211> 20
<212> PRT
<213> Homo sapiens

<400> 54

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe
1 5 10 15

Ala Phe Ser Lys
20

<210> 55
<211> 18
<212> PRT
<213> Homo sapiens

<400> 55

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe
1 5 10 15

Ala Phe

<210> 56
<211> 17
<212> PRT
<213> Homo sapiens

<400> 56

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe
1 5 10 15

Ala

<210> 57
<211> 16
<212> PRT
<213> Homo sapiens

<400> 57

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe
1 5 10 15

<210> 58
<211> 15
<212> PRT
<213> Homo sapiens

<400> 58

Gln Arg Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln
1 5 10 15

<210> 59
<211> 7
<212> PRT
<213> Homo sapiens

<400> 59

Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 60
<211> 8
<212> PRT
<213> Homo sapiens

<400> 60

Phe Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 61

<211> 9

<212> PRT

<213> Homo sapiens

<400> 61

Tyr Phe Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 62

<211> 10

<212> PRT

<213> Homo sapiens

<400> 62

Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 63

<211> 12

<212> PRT

<213> Homo sapiens

<400> 63

His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 64

<211> 13

<212> PRT

<213> Homo sapiens

<400> 64

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 65

<211> 9

<212> PRT

<213> Homo sapiens

<400> 65

Ala Phe Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 66
<211> 9
<212> PRT
<213> Homo sapiens

<400> 66

Tyr Ala Pro Gly Gln Phe Ala Phe Ser
1 5

<210> 67
<211> 9
<212> PRT
<213> Homo sapiens

<400> 67

Tyr Phe Ala Gly Gln Phe Ala Phe Ser
1 5

<210> 68
<211> 9
<212> PRT
<213> Homo sapiens

<400> 68

Tyr Phe Pro Gly Ala Phe Ala Phe Ser
1 5

<210> 69
<211> 9
<212> PRT
<213> Homo sapiens

<400> 69

Tyr Phe Pro Gly Gln Ala Ala Phe Ser
1 5

<210> 70
<211> 9
<212> PRT
<213> Homo sapiens

<400> 70

Tyr Phe Pro Gly Gln Phe Ala Ala Ser
1 5

<210> 71
<211> 9
<212> PRT
<213> Homo sapiens

<400> 71

Tyr Phe Pro Gly Gln Phe Ala Phe Ala
1 5

<210> 72
<211> 471
<212> DNA
<213> Homo sapiens

<400> 72

atgcgacggc tgctgatccc tctggccctg tggctgggtg cgggtggcggt gggcgtcgccc 60
gagctcacgg aagcccagcg ccggggcctg caggtggccc tggaggaatt tcacaaggcac 120
ccgccccgtgc agtgggcctt ccaggagacc agtgtggaga gcgccgtgga cacgccttc 180
ccagctggaa tatttgtgag gctggaattt aagctgcagc agacaagctg ccggaagagg 240
gactggaaga aacccgagtg caaagtcagg cccaatggaa ggaaacggaa atgcctggcc 300
tgcatcaaac tgggctctga ggacaaagtt ctggggccgt tggtccactg ccccatagag 360
acccaagttc tgccggagggc tgaggagcac caggagaccc agtgcctcag ggtgcagcgg 420
gctggtgagg acccccacag cttctacttc cctggacagt tcgccttctc c 471

<210> 73
<211> 157
<212> PRT
<213> Homo sapiens

<400> 73

Met Arg Arg Leu Leu Ile Pro Leu Ala Leu Trp Leu Gly Ala Val Gly
1 5 10 15

Val Gly Val Ala Glu Leu Thr Glu Ala Gln Arg Arg Gly Leu Gln Val
20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Gln
35 40 45

Glu Thr Ser Val Glu Ser Ala Val Asp Thr Pro Phe Pro Ala Gly Ile
50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg
65 70 75 80

Asp Trp Lys Lys Pro Glu Cys Lys Val Arg Pro Asn Gly Arg Lys Arg
85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Gly Ser Glu Asp Lys Val Leu Gly
100 105 110

Arg Leu Val His Cys Pro Ile Glu Thr Gln Val Leu Arg Glu Ala Glu
115 120 125

Glu His Gln Glu Thr Gln Cys Leu Arg Val Gln Arg Ala Gly Glu Asp
130 135 140

Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser
145 150 155

<210> 74
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Src-related peptide kinase substrate

<400> 74

Arg Arg Leu Ile Glu Asp Ala Glu Tyr Ala Ala Arg Gly
1 5 10

<210> 75
<211> 8
<212> DNA
<213> Artificial Sequence

<220>
<223> CREB binding site

<400> 75
tgacgtca

8

<210> 76
<211> 160
<212> PRT
<213> Rattus norvegicus

<400> 76

Met Lys Cys Leu Leu Ile Ser Leu Ala Leu Trp Leu Gly Thr Ala Asp
1 5 10 15

Ile His Gly Thr Glu Leu Glu Leu Ser Glu Thr Gln Arg Arg Gly Leu
20 25 30

Gln Val Ala Leu Glu Glu Phe His Arg His Pro Pro Val Gln Trp Ala
35 40 45

Phe Gln Glu Ile Gly Val Asp Ser Ala Asp Asp Leu Phe Phe Ser Ala
50 55 60

Gly Thr Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Leu
65 70 75 80

Lys Lys Asp Trp Lys Lys Pro Glu Cys Thr Ile Lys Pro Asn Gly Arg
85 90 95

Lys Arg Lys Cys Leu Ala Cys Ile Lys Leu Asp Pro Lys Gly Lys Val
100 105 110

Leu Gly Arg Met Val His Cys Pro Ile Leu Lys Gln Gly Pro Gln Gln
115 120 125

Glu Pro Gln Glu Ser Gln Cys Ser Lys Ile Ala Gln Ala Gly Glu Asp
130 135 140

Ser Arg Ile Tyr Phe Phe Pro Gly Gln Phe Ala Phe Ser Arg Ala Leu
145 150 155 160

<210> 77

<211> 163

<212> PRT

<213> Sus scrofa

<400> 77

Met Trp Gln Leu Leu Leu Pro Leu Ala Leu Trp Leu Gly Thr Met Gly
1 5 10 15

Leu Gly Arg Ala Glu Leu Thr Ala Ala Gln Leu Arg Gly Leu Gln Val
20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Gln Trp Ala Phe Arg
35 40 45

Glu Thr Gly Val Asn Ser Ala Met Asp Thr Pro Phe Pro Ala Gly Thr
50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Arg
65 70 75 80

Asp Trp Lys Lys Ala Glu Cys Lys Val Lys Pro Asn Gly Arg Lys Arg
85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Asn Ser Glu Asp Lys Val Leu Gly
100 105 110

Arg Met Val His Cys Pro Ile Glu Thr Gln Val Gln Arg Glu Pro Glu
115 120 125

Glu Arg Gln Glu Ala Gln Cys Ser Arg Val Glu Arg Ala Gly Glu Asp
130 135 140

Pro His Ser Tyr Tyr Phe Pro Gly Gln Phe Ala Phe Phe Lys Ala Leu
145 150 155 160

Pro Pro Ser

<210> 78
<211> 160
<212> PRT
<213> Bos taurus

<400> 78

Met Trp Gln Leu Leu Leu Pro Leu Ala Leu Gly Leu Gly Thr Met Gly
1 5 10 15

Leu Gly Arg Ala Glu Leu Thr Thr Ala Gln His Arg Gly Leu Gln Val
20 25 30

Ala Leu Glu Glu Phe His Lys His Pro Pro Val Leu Trp Ala Phe Gln
35 40 45

Val Thr Ser Val Asp Asn Ala Ala Asp Thr Leu Phe Pro Ala Gly Gln
50 55 60

Phe Val Arg Leu Glu Phe Lys Leu Gln Gln Thr Ser Cys Arg Lys Lys
65 70 75 80

Asp Trp Arg Lys Glu Asp Cys Lys Val Lys Pro Asn Gly Arg Lys Arg
85 90 95

Lys Cys Leu Ala Cys Ile Lys Leu Asp Ser Lys Asp Gln Val Leu Gly
100 105 110

Arg Met Val His Cys Pro Ile Gln Thr Gln Val Gln Arg Glu Leu Asp
115 120 125

Asp Ala Gln Asp Ala Gln Cys Ser Arg Val Glu Arg Ala Gly Glu Asp
130 135 140

Pro His Ser Tyr Tyr Leu Pro Gly Gln Phe Ala Phe Ile Lys Ala Leu
145 150 155 160

<210> 79
<211> 165
<212> PRT
<213> Gallus gallus

<400> 79

Arg Ala Val Gly Met Lys Leu Leu Leu Gly Ile Ala Val Val Val Leu
1 5 10 15

Ala Leu Ala Asp Ala Gly Gln Ser Pro Leu Gln Arg Arg Val Val Lys
20 25 30

Asp Val Leu Asp Tyr Phe His Ser Arg Ser Asn Val Gln Phe Leu Phe
35 40 45

Arg Glu Gln Ser Val Glu Gly Ala Val Glu Arg Val Asp Ser Ser Gly
50 55 60

Thr Phe Val Gln Leu His Leu Asn Leu Ala Gln Thr Ala Cys Arg Lys
65 70 75 80

Gln Ala Gln Arg Lys Gln Asn Cys Arg Ile Met Glu Asn Arg Arg Lys
85 90 95

Pro Val Cys Leu Ala Cys Tyr Lys Phe Asp Ser Ser Asp Val Pro Lys
100 105 110

Val Leu Asp Lys Tyr Tyr Asn Cys Gly Pro Ser His His Leu Ala Met
115 120 125

Lys Asp Ile Lys His Arg Asp Glu Ala Glu Cys Arg Ala Val Glu Glu
130 135 140

Ala Gly Lys Thr Ser Asp Val Leu Tyr Leu Pro Gly Met Phe Ala Phe
145 150 155 160

Ser Lys Gly Leu Pro
165

<210> 80
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Substrate peptide for Protein Kinase C

<220>
<221> PEPTIDE
<222> (1)...(7)
<223> Substrate peptide

<400> 80

Phe Lys Lys Ser Phe Lys Leu
1 5

<210> 81
<211> 11
<212> DNA
<213> Artificial Sequence

<220>
<223> Consensus NF-kappa B binding site

<220>
<221> misc_binding
<222> (1)...(11)
<223> Consensus binding element sequence

<400> 81
ggggactttc c

11

<210> 82
<211> 6
<212> PRT
<213> Homo sapiens

<400> 82

Lys Ala Leu Pro Arg Ser
1 5

<210> 83
<211> 17
<212> PRT
<213> Homo sapiens

<400> 83

Ala Gly Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe
1 5 10 15

Ser

<210> 84
<211> 15
<212> PRT
<213> Homo sapiens

<400> 84

Glu Asp Pro His Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser
1 5 10 15

<210> 85
<211> 11
<212> PRT
<213> Homo sapiens

<400> 85

Ser Phe Tyr Phe Pro Gly Gln Phe Ala Phe Ser
1 5 10

<210> 86
<211> 6
<212> PRT
<213> Homo sapiens

<400> 86

Gly Gln Phe Ala Phe Ser

1 5

<210> 87
<211> 5
<212> PRT
<213> Homo sapiens

<400> 87

Gln Phe Ala Phe Ser
1 5

<210> 88
<211> 9
<212> PRT
<213> Homo sapiens

<400> 88

Tyr Phe Pro Ala Gln Phe Ala Phe Ser
1 5

<210> 89
<211> 8
<212> PRT
<213> Homo sapiens

<400> 89

Phe Ser Lys Ala Leu Pro Arg Ser
1 5

<210> 90
<211> 7
<212> PRT
<213> Homo sapiens

<400> 90

Glu Leu Thr Glu Ala Gln Arg
1 5

<210> 91
<211> 13
<212> PRT
<213> Homo sapiens

<400> 91

Tyr His Ser Phe Phe Phe Pro Gly Gln Phe Ala Phe Ser
1 5 10